

इंटरनेट

मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 12293 (1988): Recorded characteristics of magnetic audio records for motion picture film (8 mm type S) [MED 32: Photographic Equipment]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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Indian Standard

RECORDED CHARACTERISTICS MAGNETIC AUDIO RECORDS FOR
MOTION-PICTURE FILM (8 mm TYPE S)

0. Foreword

0.1 While preparing this standard, assistance has been derived from ANSI PH22. 209M-1984 for motion-picture film (8 mm Type S)—recorded characteristic — magnetic audio records, issued by the American National Standards Institute.

0.2 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960 'Rules for rounding off numerical values (revised)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. Scope — This standard specifies the recorded characteristic of magnetic audio records on 8-mm Type S motion-picture prints and on full-coat motion-picture magnetic film running at the nominal speed of 24 frames [102 mm (4'0)] per second or 25 frames [106 mm (4'2 in)] per second.

2. Reference Characteristics — The recorded relative short-circuit magnetic flux level *versus* frequency shall be as given by the following equation:

$$L\phi = 0.02738 - 10 \log_{10} \frac{[1 + (2\pi T_h) 2f^2]}{[1 + 1/(2\pi T_l) 2f^2]} \text{ dB}$$

where $L\phi$ is the recorded relative short-circuit magnetic flux level in decibels, f is the frequency in hertz, T_l is the low frequency time constant of 3180 μ s, T_h is the high frequency time constant of 90 μ s and 0.02738 is a constant calculated to make $L\phi = 0$ at the reference frequency of 315 Hz (see Table 1).

TABLE 1 RELATIVE FLUX LEVEL ($L\phi$) VERSUS FREQUENCY

Frequency Hz	N dB
50	3.04
63	2.15
80	1.45
100	0.98
125	0.65
160	0.40
200	0.24
250	0.11
315	0.00
400	-0.12
500	-0.26
630	-0.46
800	-0.76
1 000	-1.17
1 250	-1.73
1 600	-2.57
2 000	-3.55
2 500	-4.74
3 150	-6.18
4 000	-7.84
5 000	-9.51
6 300	-11.34
8 000	-13.29
10 000	-15.15

The appropriate numerical values of the recorded relative short-circuit magnetic flux levels, $L\phi$ for a series of preferred $\frac{1}{3}$ -octave frequencies in hertz are given in Table 1. The resulting curve (see Fig 1) is defined by the two time constants indicated. They are only a convenience in defining the desired response curve and are never intended as a recommended electrical circuit.

Adopted 23 March 1988

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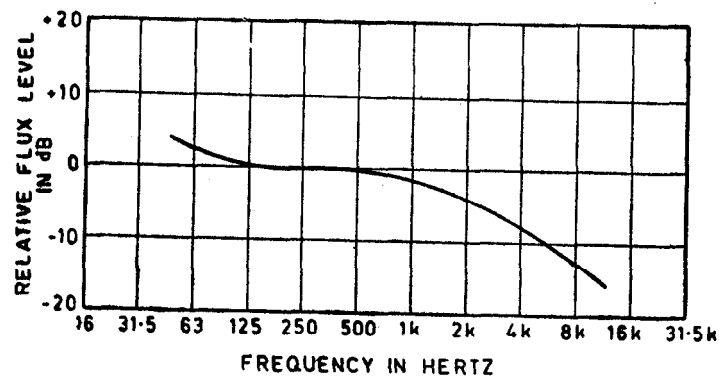


FIG. 1 RECORDED RELATIVE MAGNETIC FLUX LEVEL *VERSUS* FREQUENCY

3. Tolerances

3.1 Magnetic audio records on the film shall be recorded to the characteristic specified in 2 within the tolerance given in Fig. 2.

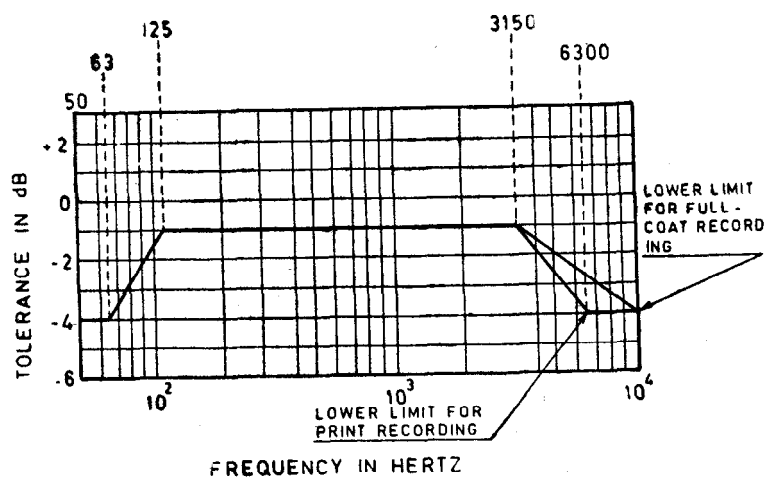


FIG. 2 TOLERANCE ON RECORDED LEVELS